



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

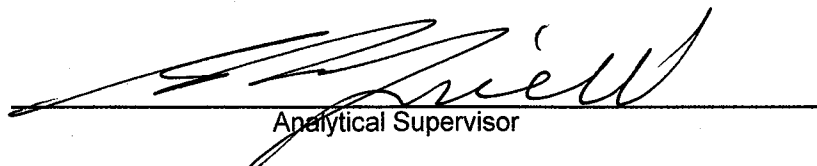
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002146
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002146001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Jonathan Burr
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 3.27
Dissolved Oxygen: 14.21 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	11	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	21	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002146002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.19 pH Units
Chlorine, residual:
Conductivity: 59 uMHO
Temperature: 2.25
Dissolved Oxygen: 14.41 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	14	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	23	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002146003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 02/05/2009 10:20
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.33 pH Units
Chlorine, residual:
Conductivity: 107 uMHO
Temperature: 3.61
Dissolved Oxygen: 13.34 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	37	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	40	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002146004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 02/05/2009 10:40
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.37 pH Units
Chlorine, residual:
Conductivity: 116 uMHO
Temperature: 3.09
Dissolved Oxygen: 13.50 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	64	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	60	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	24	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002146005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 bridge
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 02/05/2009 10:55
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.58 pH Units
Chlorine, residual:
Conductivity: 236 uMHO
Temperature: 6.44
Dissolved Oxygen: 12.46 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	100	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	84	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002146006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.69 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley F	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	255 uMHO
Project Site No.:	6	Temperature:	6.24
Station No.:	CLINC004.5RO	Dissolved Oxygen:	12.20 mg/L
Date/Time Collected:	02/05/2009 11:10	Other:	
Sampler's Name:	Larry Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	02/05/2009 12:50		
Received By:	E McCrary		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	2/9/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	94	mg/L	0.7	1	P Leathers	2/6/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	<0.1	ml/L	0.10	0.10	P Leathers	2/6/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	2/6/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected



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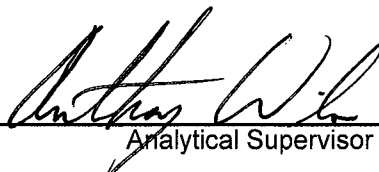
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002146
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002146001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Jonathan Burr
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 3.27
Dissolved Oxygen: 14.21 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	90	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	43	µg/L	6.4	10	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	20	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	0.24J	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	0.39J	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	0.33J	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	24	µg/L	0.42	1	M Pattanayek	2/11/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	0.07J	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	4.5J	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number: K00002146001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Jonathan Burr
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations

pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 3.27
Dissolved Oxygen: 14.21 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002146002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.19 pH Units
Chlorine, residual:
Conductivity: 59 uMHO
Temperature: 2.25
Dissolved Oxygen: 14.41 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	270	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	180	µg/L	6.4	10	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	1.4J	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	26	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	0.32J	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	2.0	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	0.58J	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	39	µg/L	0.42	1	M Pattanayek	2/11/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	0.07J	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	4.0J	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number: K00002146002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 02/05/2009 10:00
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations

pH: 7.19 pH Units
Chlorine, residual:
Conductivity: 59 uMHO
Temperature: 2.25
Dissolved Oxygen: 14.41 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002146003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 02/05/2009 10:20
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.33 pH Units
Chlorine, residual:
Conductivity: 107 uMHO
Temperature: 3.61
Dissolved Oxygen: 13.34 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	7100	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	5800	µg/L	320.0	500	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	17	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	200	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	1.2	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	6.6	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	6.4	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	16	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	11	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	330	µg/L	0.84	2	M Pattanayek	2/11/2009
Nickel	10	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	0.57J	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	25	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	23	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number: K00002146003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 02/05/2009 10:20
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations

pH: 7.33 pH Units
Chlorine, residual:
Conductivity: 107 uMHO
Temperature: 3.61
Dissolved Oxygen: 13.34 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002146004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 02/05/2009 10:40
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.37 pH Units
Chlorine, residual:
Conductivity: 116 uMHO
Temperature: 3.09
Dissolved Oxygen: 13.50 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	4700	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	3900	µg/L	256.0	400	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	10	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	140	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	0.73J	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	4.4J	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	4.1	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	11	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	6.6	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	320	µg/L	0.84	2	M Pattanayek	2/11/2009
Nickel	7.3	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	0.31J	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	16	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	16	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number: K00002146004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 02/05/2009 10:40
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.37 pH Units
Chlorine, residual:
Conductivity: 116 uMHO
Temperature: 3.09
Dissolved Oxygen: 13.50 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002146005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 bridge
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 02/05/2009 10:55
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.58 pH Units
Chlorine, residual:
Conductivity: 236 uMHO
Temperature: 6.44
Dissolved Oxygen: 12.46 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	280	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	120	µg/L	6.4	10	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	1.2J	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	32	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	0.20J	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	0.58J	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	31	µg/L	0.42	1	M Pattanayek	2/11/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	0.04J	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	2.8J	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number: K00002146005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 bridge
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 02/05/2009 10:55
Sampler's Name: Larry Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 02/05/2009 12:50
Received By: E McCrary

Field Determinations
pH: 7.58 pH Units
Chlorine, residual:
Conductivity: 236 uMHO
Temperature: 6.44
Dissolved Oxygen: 12.46 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00002146006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.69 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	255 uMHO
Project Site No.:	6	Temperature:	6.24
Station No.:	CLINC004.5RO	Dissolved Oxygen:	12.20 mg/L
Date/Time Collected:	02/05/2009 11:10	Other:	
Sampler's Name:	Larry Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	02/05/2009 12:50		
Received By:	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Digestion Metals	02/06/2009				A Wilson	2/6/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Iron	220	µg/L	2.9	10	A Bass	2/18/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Aluminum	83	µg/L	6.4	10	M Pattanayek	2/11/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	2/11/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	2/11/2009
Barium	31	µg/L	2.5	5	M Pattanayek	2/11/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	2/11/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	2/11/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	2/11/2009
Cobalt	0.17J	µg/L	0.04	1	M Pattanayek	2/11/2009
Copper	1.2	µg/L	0.38	1	M Pattanayek	2/11/2009
Lead	0.28J	µg/L	0.10	1	M Pattanayek	2/11/2009
Manganese	29	µg/L	0.42	1	M Pattanayek	2/11/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	2/11/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	2/11/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	2/11/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	2/11/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	2/11/2009
Zinc	2.7J	µg/L	1.9	5	M Pattanayek	2/11/2009

Lab-Sample Number:	K00002146006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.69 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	255 uMHO
Project Site No.:	6	Temperature:	6.24
Station No.:	CLINC004.5RO	Dissolved Oxygen:	12.20 mg/L
Date/Time Collected:	02/05/2009 11:10	Other:	
Sampler's Name:	Larry Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	02/05/2009 12:50		
Received By:	E McCrary		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	2/10/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected